

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application. Please cancel claims 19 and 36 without prejudice or disclaimer, and amend claims 17, 18, 20, 22-26, 34, 35, 37, and 39-43, as follows:

1-16. (Canceled).

17. (Currently amended) A process for manufacturing elastomeric components of a tyre for a vehicle wheel, the process comprising:

feeding a continuous elongated element from a delivery member by exerting a feeding pressure on an elastomeric material inside the delivery member, the delivery member comprising a gear pump rotating in a first direction during feeding;

rotating a building support around a geometrical rotation axis of the building support;

carrying out controlled relative displacements between the delivery member and the building support to form a tyre component;

stopping the feeding of the elongated element when formation of the tyre component is complete by bringing the gear pump to a standstill;

after bringing the gear pump to a standstill, maintaining the gear pump at a standstill for a first predetermined period of time; and

after maintaining the gear pump at a standstill for the first predetermined period of time, exerting a counter-pressure inside the delivery member by rotating the gear pump in a second direction, opposite the first direction, for a second predetermined period of time after stopping the feeding such that the pressure inside the delivery

member drops to between about 10 bars and about 50 bars, wherein the first predetermined period of time, the counter-pressure and the second predetermined period of time are predetermined to result in the elastomeric material inside the delivery member reaching a sufficient pressure to ensure reproducibility of the elongated element;

wherein feeding the elongated element assists application of the elongated element onto the building support,

wherein rotating the building support assists circumferential distribution of the elongated element on the building support,

wherein carrying out controlled relative displacements assists transverse distribution of the elongated element on the building support, and

wherein the tyre component is defined by a plurality of coils laid in a preestablished deposition pattern depending on a predetermined cross-section outline to be given to the tyre component.

18. (Currently amended) The process of claim 17, wherein the delivery member further comprises:

an extrusion screw associated with the gear pump, upstream of the gear pump;

~~a gear pump associated with the extrusion screw downstream of the extrusion screw; and~~

an outlet die associated downstream of the gear pump[[:]]

~~wherein the gear pump has a first rotation direction during feeding the elongated element.~~

19. (Canceled).

20. (Currently amended) The process of claim 18, wherein stopping the feeding comprises ~~stopping movement of~~ bringing the gear pump to a standstill in a period of time greater than or equal to about 0.1 seconds and less than or equal to about 8 seconds.

21. (Previously presented) The process of claim 18, wherein during stopping the feeding, pressure downstream of the gear pump decreases to a value greater than or equal to about 150 bars and less than or equal to about 400 bars.

22. (Currently amended) The process of claim 20, wherein ~~after stopping movement of the gear pump,~~ maintaining the gear pump at a standstill comprises the gear pump ~~[[keeps]]~~ remaining at a standstill for a period of time greater than or equal to about 0.1 seconds and less than or equal to about 3 seconds.

23. (Currently amended) The process of claim 22, wherein while the gear pump ~~[[keeps]]~~ remains at a standstill, pressure downstream of the gear pump decreases to a value greater than or equal to about 150 bars and less than or equal to about 200 bars.

24. (Currently amended) The process of claim 19, wherein the ~~counter-rotation~~ rotating of the gear pump in the second direction is carried out for a period of time greater than or equal to about 1 second and less than or equal to about 5 seconds.

25. (Currently amended) The process of claim 19, wherein during the ~~counter-rotation~~ rotating of the gear pump in the second direction, the gears of the gear pump rotate through an angle greater than or equal to about 10° and less than or equal to about 40°.

26. (Currently amended) The process of claim 19, wherein at the end of the ~~counter-rotation~~ rotating of the gear pump in the second direction, pressure downstream of the gear pump is greater than or equal to about 10 bars and less than or equal to about 50 bars.

27. (Previously presented) The process of claim 17, wherein feeding the elongated element restarts after a time gap greater than or equal to about 1.2 seconds and less than or equal to about 16 seconds from stopping the feeding of the elongated element.

28. (Previously presented) The process of claim 27, wherein the time gap substantially corresponds to a time required for positioning a subsequent tyre being built close to the delivery member.

29. (Previously presented) The process of claim 17, wherein the building support is a substantially rigid toroidal support.

30. (Previously presented) The process of claim 17, wherein the building support comprises a varying surface configuration.

31. (Previously presented) The process of claim 30, wherein the surface configuration varies from a substantially cylindrical configuration to a substantially toroidal configuration.

32. (Previously presented) The process of claim 17, wherein the building support comprises a substantially cylindrical outer surface.

33. (Previously presented) The process of claim 17, wherein the feeding pressure inside the delivery member is greater than or equal to about 200 bars and less than or equal to about 650 bars.

34. (Currently amended) A process for manufacturing elastomeric components of a tyre for a vehicle wheel, the process comprising:

feeding a continuous elongated element from a delivery member by exerting a feeding pressure on an elastomeric material inside the delivery member, the delivery member comprising a gear pump rotating in a first direction during feeding;

rotating a building support around a geometrical rotation axis of the building support;

carrying out controlled relative displacements between the delivery member and the building support to form a tyre component;

stopping the feeding of the elongated element when formation of the tyre component is complete by bringing the gear pump to a standstill;

after bringing the gear pump to a standstill, maintaining the gear pump at a standstill for a first predetermined period of time; and

after maintaining the gear pump at a standstill for the first predetermined period of time, exerting a counter-pressure inside the delivery member by rotating the gear pump in a second direction, opposite the first direction, for a second predetermined period of time ~~after stopping the feeding~~, wherein the first predetermined period of time, the counter-pressure and the second predetermined period of time are predetermined to result in the elastomeric material inside the delivery member reaching a sufficient pressure to ensure reproducibility of the elongated element;

wherein feeding the elongated element assists application of the elongated element onto the building support,

wherein rotating the building support assists circumferential distribution of the elongated element on the building support,

wherein carrying out controlled relative displacements assists transverse distribution of the elongated element on the building support, and

wherein the tyre component is defined by a plurality of coils laid in a preestablished deposition pattern depending on a predetermined cross-section outline to be given to the tyre component,

wherein feeding the elongated element restarts after a time gap substantially corresponding to a time required for positioning a subsequent tyre being built close to the delivery member.

35. (Currently amended) The process of claim 34, wherein the delivery member further comprises:

an extrusion screw associated with the gear pump, upstream of the gear pump;

~~a gear pump associated with the extrusion screw downstream of the
extrusion screw; and~~

an outlet die associated downstream of the gear pump[[:]]

~~wherein the gear pump has a first rotation direction during feeding the
elongated element.~~

36. (Canceled).

37. (Currently amended) The process of claim 35, wherein stopping the feeding comprises ~~stopping movement of~~ bringing the gear pump to a standstill in a period of time greater than or equal to about 0.1 seconds and less than or equal to about 8 seconds.

38. (Previously presented) The process of claim 35, wherein during stopping the feeding, pressure downstream of the gear pump decreases to a value greater than or equal to about 150 bars and less than or equal to about 400 bars.

39. (Currently amended) The process of claim 37, wherein ~~after stopping movement of the gear pump,~~ maintaining the gear pump at a standstill comprises the gear pump ~~[[keeps]]~~ remaining at a standstill for a period of time greater than or equal to about 0.1 seconds and less than or equal to about 3 seconds.

40. (Currently amended) The process of claim 39, wherein while the gear pump ~~[[keeps]]~~ remains at a standstill, pressure downstream of the gear pump

decreases to a value greater than or equal to about 150 bars and less than or equal to about 200 bars.

41. (Currently amended) The process of claim 36, wherein the ~~counter-rotation~~ rotating of the gear pump in the second direction is carried out for a period of time greater than or equal to about 1 second and less than or equal to about 5 seconds.

42. (Currently amended) The process of claim 36, wherein during the ~~counter-rotation~~ rotating of the gear pump in the second direction, the gears of the gear pump rotate through an angle greater than or equal to about 10° and less than or equal to about 40°.

43. (Currently amended) The process of claim 36, wherein at the end of the ~~counter-rotation~~ rotating of the gear pump in the second direction, pressure downstream of the gear pump is greater than or equal to about 10 bars and less than or equal to about 50 bars.

44. (Previously presented) The process of claim 34, wherein the time gap is greater than or equal to about 1.2 seconds and less than or equal to about 16 seconds from stopping the feeding of the elongated element.

45. (Previously presented) The process of claim 34, wherein the building support is a substantially rigid toroidal support.

46. (Previously presented) The process of claim 34, wherein the building support comprises a varying surface configuration.

47. (Previously presented) The process of claim 46, wherein the surface configuration varies from a substantially cylindrical configuration to a substantially toroidal configuration.

48. (Previously presented) The process of claim 34, wherein the building support comprises a substantially cylindrical outer surface.